

IN THE CLAIMS

Please amend the following claims:

30. A golf ball comprising:

(a) a core; and

(b) a cover formed by casting having a hardness of 50D to 65D, wherein said cover being a polyurethane formed without the use of catalysts from the reaction products of:

(1) a diisocyanate wherein said diisocyanate is selected from a group consisting of toluene diisocyanate, 4,4'-diphenylmethane diisocyanate, Isophorone diisocyanate and mixtures thereof;

(2) a polyol having a molecular weight of about 650-3000 wherein said polyol is an ether glycol; and,

(3) a curing agent consisting of:

(A) a first diamine dimethylthio-2,4-toluenediamine; and,

(B) a second diamine diethyl-2,4-toluenediamine.

31. The golf ball of claim 30 wherein the diisocyanate is toluene diisocyanate.

32. The golf ball of claim 30 wherein the diisocyanate is toluene diisocyanate, the polyol is polyoxytetramethylene ether glycol forming a prepolymer having an NCO content of about 6%, which when mixed with the curing agent forms a pot life of 55-70 seconds.

Sub
E2

D3

40. A golf ball comprising:

a core comprising a center and thread layer wherein said core has a diameter from about 1.48" to about 1.62"; and,

a polyurethane cover having a hardness of 50D to 65D formed from:

(a) (1) a diisocyanate selected from the group consisting of toluene diisocyanate, 4,4'-diphenylmethane diisocyanate, Isophorone diisocyanate and mixtures thereof, and

(2) [a] an ether glycol polyol having a molecular weight of about 650-3000; and,

(b) a curing agent comprising:

(1) dimethylthio-2,4-toluenediamine; and,

(2) diethyl-2,4-toluenediamine.

41. The golf ball of claim 40 wherein the polyol is polyoxytetramethylene ether glycol.

Sub
E3

D4

43. A golf ball comprising:

a center comprising 100 PPHR cis polybutadiene rubber, 20 PPHR zinc acrylate salt, 24.5 PPHR barium sulfate, 6 PPHR zinc oxide, 3 PPHR zinc stearate and 2.1 PPHR 1,1-di-(tert-butylperoxy)-3,3,5-trimethyl cyclohexane;

a thread layer winding comprised of polyisoprene rubber; and

D4 a cast cover having a hardness of 50D to 65D comprising the reaction product of 100 PPHR of toluene diisocyanate and polyoxytetramethylene ether glycol that forms a prepolymer with an NCO content of about 5.5% to 8.0% by weight of said prepolymer, said prepolymer is further reacted with 13.2 PPHR of a curative comprising diethyl-2,4-toluenediamine and dimethylthio-2,4-toluenediamine at a 50:50 weight ratio and 2.3 PPHR pigment so that the overall ball diameter is about 1.68" .

sub E3 44. A golf ball comprising:

(a) a core; and

(b) a cover having a hardness of 50D to 65D, said cover being a polyurethane formed from the reaction products of:

D5 (1) a diisocyanate selected from the group consisting of toluene diisocyanate, 4,4'-diphenylmethane diisocyanate, Isophorone diisocyanate and mixtures thereof;

(2) a polyol having ether groups, wherein said polyol has a molecular weight of about 650-3000; and,

(3) a curing agent comprising:

(A) a first diamine substituted toluene wherein said first diamine substituted toluene has amine groups which are sterically or electronically hindered; and,

(B) a second diamine substituted toluene having no interference with its amine group, wherein said first diamine substituted